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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,291	04/25/2001	Keith Joseph Allen	7780/12 (T00340)	7814

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Chicago, IL 60610

EXAMINER

KIM, JUNG W

ART UNIT	PAPER NUMBER
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2132

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

8

Office Action Summary	Application No.	Applicant(s)	
	09/843,291	ALLEN ET AL.	
	Examiner	Art Unit	
	Jung W Kim	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/2002</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. Claims 1-22 have been examined.

Drawings

2. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings are informal. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will be held in abeyance until a notice of allowance is mailed.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested: "Method and system for authenticating a service request using a line identifier associated with a port of a remote authentication server".

Claim Objections

4. Claim 7 is objected to because of the following informalities: the word "in" should be replaced with the word "and". Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 4, 6, 8, 9, 12, 14, 15, 17-19, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rigney et al. RFC 2865 "Remote Authentication Dial In User Service (RADIUS)" (hereinafter Rigney) in view of Laursen et al. U.S. Patent No. 6,233,608 (hereinafter Laursen).

8. As per claim 1, Rigney discloses a method for providing a port value to a service provider, comprising:

- a. receiving a service request from a subscriber, which includes a subscriber identifier, on a port and transferring the subscriber identifier and the port value to the service provider for authentication of the subscriber (see Rigney, sec. 2, 1st paragraph);
 - b. authenticating a service request based on the port value and subscriber identifier at the service provider (see Rigney, sec. 2, 3rd paragraph).
9. Rigney does not expressly disclose associating a line identifier with the port assigned to a subscriber wherein the line identifier is usable to authenticate a service request. Laursen discloses associating a line identifier with an IP address and port number wherein the line identifier is stored in a database, retrieved from the database in response to a service request, and the line identifier is transferred to the service provider; wherein the service provider uses the line identifier to authenticate the service request. See Laursen, fig. 2.b; col. 7:36-8:31. It would be obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of Laursen to the method of Rigney. Motivation to combine includes, inter alia, establishing a unique mapping between a subscriber's line and authentication information associated with the subscriber to securely link a subscriber's request with a IP address and port value as known to one of ordinary skill in the art and as taught by Laursen. Ibid. The aforementioned cover the limitations of claim 1.
10. As per claims 4 and 8, Rigney teaches a method as outlined above in the claim 1 rejection under 35 U.S.C. 103(a). In addition, the service request is authenticated by

the provider based on the subscriber identifier and the line identifier. See Rigney, sec. 2, 3rd paragraph as modified by Laursen, fig. 2.b. The aforementioned cover the limitations of claims 4 and 8.

11. As per claim 6, Rigney teaches a method as outlined above in the claim 4 rejection under 35 U.S.C. 103(a). In addition, the subscriber identifier and the line identifier are transferred together to the provider. See Rigney as modified by Laursen, *ibid*. The aforementioned cover the limitations of claim 6.

12. As per claim 9, it is a claim corresponding to claim 1 and it does not teach or define above the information claimed in claim 1. Therefore, claim 9 is rejected as being unpatentable over Rigney in view of Laursen for the same reasons set forth in the rejection of claim 1.

13. As per claims 12, 14 and 15, Rigney teaches a method as outlined above in the claim 1 rejection under 35 U.S.C. 103(a). In addition, a remote access server (network access server) associates the line identifier with the port, and stores and retrieves the line identifier for authentication of a service request. See Rigney, sec. 1, Introduction, as modified by Laursen, *ibid*. In addition, a remote access server in the context of the invention taught by Rigney and Laursen necessarily includes a port, a management interface, a database interface and a network interface for the corresponding steps outlined above. The aforementioned cover the limitations of claims 12, 14 and 15.

14. As per claims 17-19, Rigney teaches a method as outlined above in the claim 6, 12, 14 and 15 rejections under 35 U.S.C. 103(a). In addition, the subscriber unit is configured to present a user interface for selecting the network service. See Rigney as modified by Laursen, fig. 2.b, ref. no. 106. The aforementioned cover the limitations of claims 17-19.

15. As per claim 21, it is a claim corresponding to claim 1 and it does not teach or define above the information claimed in claim 1. Therefore, claim 21 is rejected as being unpatentable over Rigney in view of Laursen for the same reasons set forth in the rejection of claim 1.

16. As per claim 22, Rigney teaches a method as outlined above in the claim 12 and 17-19 rejections under 35 U.S.C. 103(a). In addition, the authentication system is disclosed as using a broadband network. See Rigney, sec. 5.41, values 11-17. The aforementioned cover the limitations of claim 22.

17. Claims 2, 3, 5, 7, 10, 11, 13, 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rigney in view of Laursen, and further in view of Stallings, Cryptography and network security.

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18. As per claims 2 and 3, Rigney teaches a method as outlined above in the claim 1 rejection under 35 U.S.C. 103(a). Rigney does not expressly disclose authenticating the line identifier after first authenticating the subscriber identifier at the service provider. Stallings teaches an exchange wherein a second set of authentication values is submitted in a separate transaction from a first set of authentication values. See Stallings, page 431, Table 13.4 (c), wherein a nonce is the first set and id of the sender is the second set. It would be obvious to one of ordinary skill in the art at the time the invention was made to authenticate a subscriber identifier at the service provider and query the database in response to the authenticated subscriber identifier to retrieve the line identifier therefrom to separate the two authentication inquiries such that the later authentication set is not revealed until the first authentication step successfully transpires. See Stallings, page 430, 'The Authentication Only Exchange', second to last paragraph. The aforementioned cover the limitations of claims 2 and 3.

19. As per claim 5, it is a claim corresponding to claims 2-4 and it does not teach or define above the information claimed in claims 2-4. Therefore, claim 5 is rejected as being unpatentable over Rigney in view of Laursen and Stallings for the same reasons set forth in the rejections of claims 2-4.

20. As per claim 7, Rigney teaches a method as outlined above in the claim 5 rejection under 35 U.S.C. 103(a). In addition, the subscriber identifier and the line

identifier are transferred separately to the provider. See Rigney as modified by Laursen and Stallings, *ibid*. The aforementioned cover the limitations of claim 7.

21. As per claims 10 and 11, they are claims corresponding to claims 2 and 3, and they do not teach or define above the information claimed in claims 2 and 3. Therefore, claims 10 and 11 are rejected as being unpatentable over Rigney in view of Laursen and Stallings for the same reasons set forth in the rejections of claims 2 and 3.

22. As per claim 13, it is a claim corresponding to claims 2 and 12, and it does not teach or define above the information claimed in claims 2 and 12. Therefore, claim 13 is rejected as being unpatentable over Rigney in view of Laursen and Stallings for the same reasons set forth in the rejections of claims 2 and 12.

23. As per claim 16, it is a claim corresponding to claims 7 and 14, and it does not teach or define above the information claimed in claims 7 and 14. Therefore, claim 16 is rejected as being unpatentable over Rigney in view of Laursen and Stallings for the same reasons set forth in the rejections of claims 7 and 14.

24. As per claim 20, it is a claim corresponding to claims 7 and 18, and it does not teach or define above the information claimed in claims 7 and 18. Therefore, claim 20 is rejected as being unpatentable over Rigney in view of Laursen and Stallings for the same reasons set forth in the rejections of claims 7 and 18.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

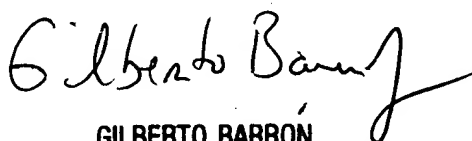
Mitton RFC 2882 "Network Access Servers Requirements: Extended RADIUS Practices".

Bryant "Designing an Authentication System: a Dialogue in Four Scenes".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung W Kim whose telephone number is (571) 272-3804. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (571) 272-3799. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Jk
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